

GP-302034

REMARKS

Claims 1-21 are pending in the present application. Claims 1-17 have been canceled without prejudice by preliminary amendment and Claims 19 and 20 have been amended, leaving Claims 18-21 for consideration upon entry of the present Amendment. No new matter has been introduced by these amendments. For example, Claims 19 and 20 have been amended to correct their dependency.

Reconsideration and allowance of the claims is respectfully requested in view of the above amendments and the following remarks.

Claim Objection

Claims 18 and 21 are objected to because the term "and/or" is allegedly vague and not a positive recitation. Applicants respectfully traverse this objection.

Applicants contend that the use of the term "and/or" is not vague as suggested by the Examiner. MPEP §2173.05 (h) states that the use of alternative language in a claim does not necessarily render the claim vague. In *In re Gaubert*, 524 F2d 1222, 187 USPQ 664 (CCPA 1975), the phrases "made entirely or in part of" and "iron, steel, or any other magnetic material" were held to be acceptable and not in violation of 35 USC §112, second paragraph. Moreover, the courts have determined that the claim term "optionally" is not necessarily indefinite. As long as there is no ambiguity, the use of alternative language is permitted. It is only where the list of potential alternatives can vary that ambiguity arises. Applicants respectfully submit that the use of the phrase "...adapted to change a shape orientation and/or a flexural modulus..." in Claims 18 and 21 is acceptable because no ambiguity (i.e., no variation in the list of potential alternatives), exists.

Accordingly, Applicants respectfully request withdrawal of the objection to Claims 18 and 21.

GP-302034

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 18-21 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 6,598,274 to Marmaropoulos (hereinafter "Marmaropoulos") in view of U.S. Patent No. 5,814,999 to Elie et al. (hereinafter "Elie"). Applicants respectfully traverse this rejection.

Independent Claim 18 is directed to a hook portion for a releasable fastener system comprising a support and a plurality of hook elements disposed on a surface of the support, wherein the plurality of hook elements comprise a magnetorheological elastomer adapted to change a shape orientation and/or a flexural modulus upon receipt of a magnetic signal.

Independent Claim 21 is directed to a releasable fastener system comprising a loop portion comprising a support and a loop material disposed on a surface thereon; a hook portion comprising a support and a plurality of hook elements disposed on a surface, wherein the plurality of hook elements comprises a magnetorheological elastomer adapted to change a shape orientation and/or flexural modulus; and means for changing the shape orientation and/or flexural modulus to reduce a shear force and/or a pull-off force of an engaged hook and loop portion and to provide a variable damping capability to the fastener system.

Marmaropoulos is generally directed to hook and loop fastener system based on the use of shape memory alloys. Electrical energy is applied to the shape memory alloy to cause a change in its shape, thereby effecting release.

Elie is generally directed to a method and apparatus, using magnetorheological elastomers to sense or measure relative displacement and force, for use in a motor vehicle having devices for which displacement and force data may be useful for controlling the devices.

Applicants first traverse the rejection on the grounds that the instant Application and Elie are non-analogous art. For the purposes of evaluating obviousness of claimed subject matter, the particular references relied upon must constitute "analogous art". *In*

GP-302034

re Clay, 966 F.2d 656, 659, 23 U.S.P.Q.2d 1058, 1060-61 (Fed. Cir. 1992). The art must be from the same field of endeavor, or be reasonably pertinent to the particular problem with which the inventor is involved. *Id.*

The instant Application is generally directed to a hook portion, as well as a releasable fastener system, comprising, *inter alia*, a plurality of hook elements, wherein the plurality of hook elements comprises a magnetorheological elastomer adapted to change a shape orientation and/or a flexural modulus. In contrast, Elie is directed to an apparatus for measuring displacement and force, wherein the electrical state (e.g., capacitance and resistance) of a magnetorheological elastomer employed in the apparatus is measured and correlated to the displacement and force sought to be measured.

Applicants assert that hook portions and releasable fastener systems are not in the same field of endeavor as force and displacement measuring apparatuses and therefore constitute non-analogous art as it relates to the hook and loop releasable fastener systems. Applicants also assert that the field of fastening is markedly different from the field of distance and force measuring or sensing. Furthermore, Elie is not reasonably pertinent to the problem with which the instant Application is concerned because a person having ordinary skill in the art would not have reasonably have expected to solve the problems associated with making hook portions or releasable fasteners by considering references dealing with force and displacement measuring or sensing. As such, any combination of references with Elie used to render the claimed subject matter of the instant Application obvious is inappropriate and cannot properly be relied upon. Simply put, one of skill in the art of releasable fasteners would not look to the art directed to force and displacement measuring apparatuses. For at least these reasons, the rejection should be withdrawn.

Applicants further traverse the rejection on the grounds that a *prima facie* case of obviousness has not been established in the present Office Action, even assuming *in arguendo* that Elie was analogous art with the instant Application, which it is not. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the

GP-302034

knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success resulting from the combination. Finally, the prior art references must teach or suggest all claim limitations.

There is no motivation to substitute the magnetorheological elastomers disclosed by Elie for the shape memory alloy materials disclosed in Marmaropoulos, either based on the specific teachings in these references or the inferences which one skilled in the art would reasonably be expected to draw from. The mere fact that the references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability. *In re Mills*, 916 F.2d 680, 16 USPQ 1430 (Fed. Cir. 1990). In Marmaropoulos, there is no disclosure or suggestion of releasable fastener system having hook elements fabricated from a magnetorheological elastomer. The only materials disclosed in Marmaropoulos are shape memory alloys. Furthermore, there is no disclosure or suggestion in Elie of using the magnetorheological elastomers in releasable fastener systems. In fact, there is no disclosure or suggestion by Elie of using the magnetorheological elastomers in anything other than sensors.

Clearly then, the Examiner is improperly relying on hindsight to arrive at Applicants' independent Claims 18 and 21. In applying 35 U.S.C. § 103, the U.S. Court of Appeals for the Federal Circuit has consistently held that one must consider both the invention and the prior art "as a whole", not from improper hindsight gained from consideration of the claimed invention. See *Interconnect Planning Corp. v. Feil*, 227 U.S.P.Q. 543, 551 (Fed. Cir. 1985) and cases cited therein. According to the *Interconnect* court:

[n]ot only must the claimed invention as a whole be evaluated, but so also must the references as a whole, so that their teachings are applied in the context of their significance to a technician at the time - a technician without our knowledge of the solution.

Id.

When the 35 U.S.C. § 103 rejection was based on selective combination of the prior art references to allegedly render a subsequent invention obvious, "there must be some reason for the combination other than the hindsight gleaned from the invention

GP-302034

itself." *Id.* Stated in another way, "[i]t is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious." *In re Fritch* 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992). This is precisely what the Examiner has done in the present combination. Because there is no motivation to combine the various elements of the prior art to produce the present invention, the present invention is non-obvious.

Accordingly, Applicants respectfully request the rejection applied to Claims 18-21 be withdrawn.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Assignee.

Respectfully submitted,

CANTOR COLBURN LLP
Applicants' Attorneys

By: 

Peter R. Hagerly
Registration No. 42,618

Date: January 25, 2005
Customer No.: 23413
Telephone: (860) 286-2929